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GEOGRAPHIC INTELLIGENCE REPORT

SOVIET EXPLORATION AND RESEARCH IN THE ANTARCTIC
A Preliminary Appraisal

SUPPLEMENT A

CIA/RR-GR-84.1
30 November 1955

CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

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FOREWORD

Supplement A to GR-84, Soviet Exploration and Research in the Antarctic, 2 November 1955, was prepared at this time because of the currency of political and intelligence problems related to the Soviet interest in Antarctica. It summarizes and analyzes more recent information that provides additional (1) indications of possible Soviet intentions concerning Antarctica, and (2) details concerning Soviet operational plans and equipment for its scientific and exploration program. The supplement has been written on the assumption that the reader has or can gain access to GR-84.

Part I brings up to date the evidence of Soviet intentions of remaining in Antarctica and suggests that unorthodox procedures might be adopted by the Soviets to secure "squatters rights." Part II provides details on plans and facilities that confirm our original estimate on the depth of Soviet planning. Moreover, the magnitude of base installation being planned tends to confirm the fact that it is aimed at the establishment of bases for year-round and long-term occupancy.

Since it is planned to incorporate these facts and estimates in a subsequent revision of GR-84, the views and comments of interested readers are solicited.

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SOVIET EXPLORATION AND RESEARCH IN THE ANTARCTIC

Supplement A

I. Current Estimates of Soviet Objectives in the Antarctic

Soviet announcements concerning their Antarctic plans issued during the past month have provided additional indications of Soviet (1) efforts to build up their status with reference to their rights to Antarctica and (2) intentions of remaining in Antarctica for an indefinite period after the conclusion of the IGY program. In addition, further insight has been obtained into the possible Soviet course of action related to the development of their rights or claims to part of Antarctica. Mounting evidence indicates that the Soviets may attempt to achieve their goal obliquely through "effective occupation" rather than through a head-on claim made prior to such an occupation. In this manner the U.S. and claimant countries would be confronted with the fait accompli of an elaborate system of permanent bases and research stations spread over an extensive area.

Evidence of the plan to establish permanent bases in Antarctica was provided by E. I. Tolstikov, Deputy Head of the Chief Administration of the Northern Sea Route, Council of Ministers, USSR. In a 5 November 1955 Home Service broadcast on Soviet tasks in Antarctica, he revealed that it had been "decided to study the question of supply bases for Antarctic whaling." It is worth noting that the plan was mentioned in relation to the economic problem caused by the reduction in whale catches in the whaling area of the Slava fleet. This economic concept must also

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be linked to the Soviet memorandum of 1950,* which underscores the economic importance of the Antarctic area to all countries and stresses particularly the importance of Antarctica in world whaling activities, in which the USSR is a participant. Thus, the establishment of supply bases is adroitly tied in with a fundamental Soviet expression of its claims policy, in which the protection of economic rights of the USSR is identified with the protection of those of all other non-claimant countries.

Recent Soviet publicity concerning their scientific plans suggests that Soviet scientific interests are also being tied in to the Soviet memorandum of 1950. The memorandum underscores the scientific importance of Antarctica as a favorable base for important meteorological observations of significance to the whole Northern Hemisphere. Several recent Soviet publicity releases through the Home Service as well as the European Service stress the importance of Antarctic atmospheric processes in the general air-mass circulation of the earth and their significance to the improvement of long-range weather forecasting. It is not difficult, therefore, to discern the evolution of a careful plan to identify Soviet rights in Antarctica with the rights of all nations insofar as economic and scientific gains are concerned. Moreover, it is not inconceivable that the Soviet Union may ultimately try to emerge as the guardian of international economic freedom and the sponsor of international scientific development in the Antarctic.

*The content of the memorandum (or note) is given on p. 3 of OR-94.

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Continued emphasis is being laid on the unexplored and unmapped character of the area in which the Soviets will be active. This is accompanied by unusually strong emphasis on Soviet exploration activities.* Tolstikov states categorically: "The exhaustive, all-round exploration of Antarctica is one of the most important undertakings of the forthcoming Geophysical Year .... Exploration of the Antarctic Continent itself will play an exceptionally important role." The propaganda emphasis on this part of the Soviet program may indicate an effort to impress world opinion with the greater magnitude of the Soviet program and, ultimately, the superior results of its activities. In this manner the Soviets may hope to override any other prior claims or rights that might be based on the relatively limited activities and their modest results obtained thus far.

It would be insufficient, however, to assume that the Soviet emphasis on exploration and mapping is being undertaken merely to establish Soviet rights in Antarctica. Tolstikov in his broadcast revealed what may be a basic reason for the apparent unwillingness of the Soviets to stake out an explicit territorial claim: "...it is still not known what the Antarctic represents in itself. Is it really a continent covered by layers of ice, a group of large isles, or a whole archipelago? It is planned to solve this riddle of nature by the joint efforts of the scientists of many countries." Hence, until a systematic

*For a discussion of the nature of Soviet non-IGY activities, see GR-84, p. 18 ff.

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geological, physiographic, and topographic survey is made, the Soviets appear to be unwilling to chance the claiming of a mass of ice rather than a valuable piece of real estate. It would seem, therefore, that pending the receipt and study of the results of the activities of all countries the Soviets are likely to restrict their overt political action to publicizing their program, providing a continuing general account of their activities and achievements, and countering other Antarctic claims along the general lines reflected in the notes of 1939 and 1950. It is not expected that the Soviets will reveal the specific geographic and geologic results of their own activities, particularly if valuable information on terrain and resources is obtained. In that event, there may be a quiet establishment of continuously occupied bases, followed eventually by the exploitation of resources and the development of air facilities.

The linkage of the Russian Antarctic discovery (see GR-84, p. 15) with the Soviet Antarctic program has been further confirmed by V. F. Burkhanov, Deputy Minister of the Ministry of the Merchant Fleet and head of the Chief Administration of the Northern Sea Route, Council of Ministers, USSR. In a European broadcast in French and in an English-language broadcast to North America, he (1) mentions the discovery of Antarctica by Bellingshausen and Lazaryev, which was followed by "expeditions from the United States, France, and other countries," (2) repeats that the USSR was "allocated a most interesting

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area of the Antarctic -- where no human foot has ever trod," and (3) refers to this area as "the coastal line of the continent between the longitudes of 85° and 105°E."

In other words, it appears that the Soviet political course of action in Antarctica will be to effect a firm foothold through the gradual evolution of "effective occupation." By 1960 the Western World may be confronted with the fact that nothing short of a forceful ejection can dislodge the Soviets from Antarctica. Any attempts to dispute the Soviet occupation legally would be confronted by a propaganda reaction that would (1) claim prior discovery; (2) capitalize on the superiority of Soviet exploration and mapping results in the area of their activity; (3) emphasize the international character of the IGY program wherein some of the cooperating countries will not be territorial claimants (thus reaffirming the right of all nations to the economic and scientific benefits of the area); and (4) accuse the Western Bloc of imperialistic aggression.

It is believed that after the IGY such an occupation could be supported by Soviet supply ships and the whaling flotilla, without recourse to non-Soviet bases anywhere along the shipping lanes except for emergency needs. This has already been specified as an objective for the operations of the whaling fleet and, in fact, was achieved by the eighth voyage (1953-54) of the flotilla. Moreover, it is believed

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that supplementary Soviet air communications may be able to continue, even without the use of Australian or New Zealand facilities, through alternate arrangements such as the use of French facilities on Madagascar and Kerguelen, or even the use of a chain of rescue ships. The last would be similar to the plan being developed for the U.S. Navy flights from New Zealand to McMurdo Sound.

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II. Operational Plans

A. Organization and Methodology

The Soviet Antarctic-Complex Expedition is being organized in two sections -- continental and maritime. Within these, 12 scientific units are being formed, of which the following have been definitely identified: aerometeorological, geophysical, geological-geographical, hydrological, hydrobiological, and aerial-photography.

It has been emphasized that the Slava whaling ships will be used integrally with the expeditionary ships in the making of weather and oceanographic observations. The announcement that the Ob', the flagship of the Expedition, will take part in Arctic as well as Antarctic research is another indication of the intensity of the Soviet scientific effort. Thus, the same crew and staff will operate in both polar regions during the IGY program. This is part of the Soviet effort to obtain data that will make comparison possible between "conditions existing in the opposite polar areas of the globe and, in particular, establish what is in common and what unites atmospheric processes in the Arctic and the Antarctic, and in what [aspects] they differ." In this connection, it was announced that three rather than two drift stations will operate in the Arctic. SP-4, SP-5, and SP-6 will be organized to continue along the course followed by SP-2 under M. M. Somov in 1950-51.

Plans for the establishment of a scientific observatory at one of the Antarctic stations were announced by the Soviets in a broadcast to Europe on 12 November 1955. The following day, another broadcast to

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Europe revealed that the "South Polar Observatory" is to be called the Mirny, the station at the South Geomagnetic Pole is to be called the Vostok, and the third station at the so-called "Pole of Relative Inaccessibility" is to be called Sovetskaya. The first two names have been adopted in honor of the ships of the Bellingshausen-Lazaryev Expedition of 1819-1821.

On 1 November 1955, further indication of the methodology that might be employed in the Antarctic was suggested in an announcement giving details of the Arctic plans for the IGY. The Arctic program will include not only the 3 drift stations, 5 observatories, and 100 land (polar) stations, but also mobile research detachments and flying laboratories. Together, they will make observations at "over 500 points." This suggests the magnitude of areal coverage that may be undertaken in the Antarctic. If 500 observation points were established, it would amount to one for every 250 square miles within the estimated area of Soviet activity. One clue to the extent of coverage, therefore, may be the number of aircraft committed to the continental air detachment. It is known that 4 airplanes (Li-2) and 2 helicopters are being sent on the first voyage. Assuming that each of the subsequent voyages delivers a similar complement of aircraft, a total of 30 aircraft could be committed, not counting aircraft that may be flown from Perth, Australia. If 25 aircraft were used, 20 points per plane would provide for the total of 500 observations, a not unreasonable assumption.

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The verification of this estimate will be obtainable only through a surveillance effort on the part of the Western World.

B. Logistics

On 13 November, a broadcast announced that "the Ob' will leave the Riga shipbuilding yards [where it was refitted] in the next few days for Kaliningrad to get her cargo there." The Ob' is scheduled to depart from Kaliningrad on 30 September 1955 and the Lena in the middle of December. Additional information has also been obtained concerning the planned long-range flight schedule to Antarctica -- "Once every 3 months planes will leave Moscow for the Antarctic, thereby maintaining live contact with the Expedition." According to Somov "more than 2,000 tons of various types of fuel will be provided to Antarctica to fuel the power station, tractors, jeeps, airplanes, and helicopters." Somov also repeated his statement that the Soviets plan to supply the Expedition with fresh fruit and vegetables the year round. According to a 4 November 1955 statement by I. I. Cherevichnyy, leader of the Antarctic aviation unit, aircraft will not only be used for purposes of exploration, but also for transporting "prefabricated huts, tractors, equipment, and food stores."

C. Operational Equipment

Additional information has been obtained on some of the equipment of the Expedition. The deep-water winches on the Ob' will be capable of reaching depths up to 7,000-8,000 meters (see OIR-84, p. 37).

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The prefabricated houses described (GR 24, pp. 38-39) will have four layers of durable glass in the windows. The houses will be provided with electric water heating. They will have metal foundations and will be connected with each other by passageways, which will permit movement between buildings regardless of the weather. To increase efficiency, an automatic telephone exchange for intercommunication between buildings will be installed. The Mirny station on the Knox Coast "will consist of twenty buildings heated by steam and water," and 8 radio stations will be constructed to "insure reliable communications."

The planes to be used on the continent are being reequipped to withstand low temperatures and strong winds. Extra insulation is being put on the walls and floors of the cabins, special heating equipment and supplementary removable partitions are being installed, and facilities for food preparation are being arranged. The purpose of these alterations is to make the planes habitable for work at points far from their bases.

It has been confirmed that the aircraft for the continental aviation unit will include the Li-2, the Soviet version of the C-47 (Dakota); the Li-12, which has slightly superior performance; the AN-2 biplane; and the Mi-4 helicopter.

In addition to previously mentioned vehicles, S-80 tractors will be used.

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